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June 9, 1998

Federal Communications Commission
Washington, D.C. 20554

Dear Sir,

In the Matter of The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications through the Year 2010, Docket No. 96-86.

Enclosed please find twelve (12) copies of Compu-DAWN's comments. Compu-DAWN would be happy to come to Washington and speak with any Commission staff members regarding Radio Systems for Law Enforcement and Public Safety.

If you have any questions please do not hesitate to contact me at 516) 374-6700 ext 652.

Sincerely,

Louis Libin

Louis Libin
Chief Technology Officer
Compu-DAWN, Inc.

Cc: Mark Honigsfeld
Chief Executive Officer

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Before the
Federal Communications Commission
Washington, D.C. 20554

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In the Matter of)	
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The Development of Operational,)	
Technical and Spectrum Requirements)	
for Meeting Federal, State, and Local)	
Public Safety Communications through)	WT Docket No. 96-86
the Year 2010)	
)	
Establishment of Rules and Requirements)	
For Priority Access Service)	
To: The Commission		

**COMPU-DAWN'S COMMENTS ON THE SECOND
NOTICE OF PROPOSED RULEMAKING**

Compu-DAWN, Inc.
77 Spruce Street
Cedarhurst, NY 11516

June 5, 1998

Compu-DAWN, Inc

TABLE OF CONTENTS

	<i>Pages</i>
I. SUMMARY AND INTRODUCTION	3-4
II. THE PUBLIC SAFETY COMMUNITY HAS AN URGENT NEED FOR SPECTRUM AND ASSOCIATED SERVICES	5-7
III THE COMMISSION SHOULD ENSURE THAT ENTITIES LIKE COMPU-DAWN MAY OBTAIN SPECTRUM TO PROVIDE NEEDED PUBLIC SAFETY SERVICES	8-11
IV THE ROLE OF COMPU-DAWN IN PUBLIC SAFETY	11-13
V. CONCLUSION	13-14

In the Matter of)	
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The Development of)	
Operational Technical and)	
Spectrum Requirements for Meeting)	
Federal, State, and Local Public)	
Safety Communications through)	WT Docket No. 96-86
the Year 2010.		

To: The Commission

**COMPU-DAWN'S COMMENTS ON THE
NOTICE OF PROPOSED RULEMAKING**

I. SUMMARY AND INTRODUCTION

Compu-DAWN supports the prompt issuance of rules, Docket 96-86 for the implementation of spectrum for mobile data applications and wide-band channels. Current allocations do not provide adequate facilities to support data rates that are needed for modern day operations by law enforcement and public safety organizations.

Compu-DAWN is engaged in designing, developing, licensing, installing and servicing computer software products and systems for law enforcement and other public safety agencies. These products enhance emergency public safety dispatch and communications systems. By permitting voiceless dispatch, instantaneous roadside access to local, state and national criminal databases, preplanning for emergency or disaster

situations, and photo transmissions in the field,¹ these systems have been praised for putting another cop on the beat for each officer that is equipped with Compu-DAWN's system. These mobile systems, now at work in more than 55 public safety agencies have the additional advantage of providing image transfer and other features which are not adequately supported by spectrum as it is provided for today.

There are more than 600,000 full time police officers in the United States, in 200,000 patrol cars. These represent upwards of 20,000 agencies. However, less than 20% of these vehicles are equipped with mobile data, and less than 1% of these are currently employing advanced mobile data technology due to lack of appropriate spectrum.

¹ These Photo transmissions allow officers in the field to, among other things, create line-ups, find missing persons, verify signatures and study mug shots.

II. THE PUBLIC SAFETY COMMUNITY HAS AN URGENT NEED FOR SPECTRUM AND SERVICES

Congress and the Commission have long recognized the great role of public safety services and the need for adequate spectrum to provide these services. That need has never been so urgent, as recently documented by the respected Public Safety Wireless Advisory Committee (“PSWAC”)²: “Unless immediate measures are taken to alleviate spectrum shortfalls and promote interoperability, Public Safety Agencies will not be able to adequately discharge their obligation to protect life and property in a safe, efficient, and cost effective manner.” Appealing to Congress, New York City’s Former Deputy Police Commissioner for Technological Development, embraced PSWAC’s recommendations: “Public safety communications is at a critical juncture...In an era where radio spectrum is being auctioned for billions of dollars, public safety faces the true threat of being left behind from the innovation and progress now pervading communications³ The efficient functioning of public safety agencies is vital to the safety and welfare of the citizens they serve; effective

² In 1995, at the direction of Congress, the Commission and the National Telecommunications and Information Administration (“NTIA”) created PSWAC, directing it to evaluate the wireless communications needs of federal, state, and local public safety agencies through the year 2010, and to make recommendations regarding those needs. PSWAC brought together more than 500 representatives of the public safety community in a massive collaborative effort and delivered a comprehensive 75-page report in September 1996. See Final Report of the Public Safety Wireless Advisory Committee, September 11, 1996 (hereafter “PSWAC Final Report”).

³ Statement of Michael Amarosa, Deputy Police Commissioner, Technological Development, New York City Police Department, before the House Telecommunications Subcommittee on February 12, 1997 (hereafter “Amarosa Statement”), at 4.

communications are, in turn, essential to public safety functions.⁴ Over the last year, however, the Administration,⁵ the Commission,⁶ Members of Congress,⁷ the public safety community, and non-public-safety users of spectrum have unanimously agreed that the public safety community faces serious challenges with respect to communications and spectrum usage.

The PSWAC Final Report, which lays out the challenges faced by the public safety community and suggests possible solutions, has been widely endorsed by both the private sector and government policymakers.⁸ PSWAC concluded that 2.5 MHz of spectrum are

⁴ Amarosa Statement, at 4 (“[G]rave decisions regarding the health and welfare of our citizens are made by public safety professionals on a daily basis all across the country. Evolving, radio-based technologies and the existence of effective spectrum management, combined with spectrum availability, are crucial to these professionals’ efficient discharge of their duties as first responders and life savers.”).

⁵ In the first week in February, Attorney General Janet Reno announced President Clinton’s concern for public safety spectrum needs and his recommendation that 24 MHz from the television channels 60-69 be reserved for public safety use. *See Statement by Attorney General Janet Reno on Proposal to Set Aside Commercial Frequencies for Public Safety Use*, February 6, 1997.

⁶ *See The Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010*. WT Docket No. 96-86, Notice of Proposed Rule Making, 11 FCC Rcd 12460 (rel. April 10, 1996) (“Public Safety NPRM”).

⁷ In light of the near-unanimous consensus that public safety users need more spectrum, Senator McCain has recently proposed legislation to reserve channels 60-69 for public safety use. *See S.255, The Law Enforcement and Public Safety Telecommunications Empowerment Act*, as introduced in the United States Senate on February 4, 1997. Noting that “state and local agencies responsible for law enforcement and public safety have inadequate spectrum, the bill would amend the Communications Act of 1934 “to provide for the reallocation and auction of a portion of the electromagnetic spectrum to enhance law enforcement and public safety telecommunications.” *Id.*, Section 2(6).

⁸ This landmark report has already become the central document in today’s re-thinking of government spectrum policy. For instance, it played an influential role in a January 1997 White Paper written by Gregory L. Rosston and Jeffrey S. Steinberg of the FCC, Gregory L. Rosston & Jeffrey S. Steinberg, *Using Market-Based Spectrum Policy to Promote the Public Interest* (January 1997) (hereafter “White Paper”), which paper has itself been called by Chairman Hundt “the single best summary of desirable spectrum policy,” and one that “should generally and specifically guide the Commission’s decisions.” Statement of Reed Hundt, Chairman of the FCC, before the House Telecommunications Subcommittee on February 12, 1997 (hereafter “Hundt Statement”), at 3.

needed immediately, an additional 25 MHz will be needed within five years, and as much as 70 additional MHz will be needed by 2010.⁹ Deputy Police Commissioner Michael Amarosa highlighted this and other PSWAC recommendations in testimony before the House Telecommunications Subcommittee.¹⁰ Former FCC Chairman Hundt agreed, approving the PSWAC report, and noting the urgent need for more spectrum for public safety uses.¹¹ Many comments filed this winter by interested parties in the advanced digital television proceeding pending before the Commission¹² cited the PSWAC Report, and confirmed the need for additional public safety spectrum.¹³

Data is replacing voice in many applications. In many applications, voice is converted to data in any case. Data is more spectrum efficient. Therefore there should be more new spectrum and channels assigned for data applications.

⁹ PSWAC Final Report, at ¶ 2.2.1.

¹⁰ See Amarosa Statement, Amarosa, who spoke on behalf of the City of New York, as well as a variety of organizations with an interest in public safety spectrum usage, including the Association of Public Safety Communications Officials International and the National League of Cities, had also helped lead the final effort to draft the PSWAC report.

¹¹ See Hundt Statement, at 31-32

¹² See Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, MM Docket No. 87-268, Sixth Further Notice of Proposed Rulemaking, 11 FCC Rcd 10968 (rel. August 14, 1996) ("DTV NPRM").

¹³ See, e.g., Comments of Association of Public Safety Communications Officials, at 11-12, 15-16; Ericsson, at 9-10; International Association of Chiefs of Police, at 1-2; Motorola, at 5-6; UTC, at 6; City of Mesa, Arizona, at 3; California Department of General Services Telecommunications Division, at 6-7; International Municipal Signal Association & International Association of Fire Chiefs, at 406.

III. THE COMMISSION SHOULD ENSURE THAT ENTITIES LIKE COMPU-DAWN MAY OBTAIN SPECTRUM TO PROVIDE NEEDED PUBLIC SAFETY SERVICES

The public safety industry has focused on obtaining additional allocations for public safety entities (defined in Part 90 of the Commission's rules). Yet the PSWAC Report emphasizes the need for increased public safety use of commercial services. Indeed, Compu-DAWN believes that the acquisition of FCC licenses would greatly enhance its ability to develop and provide public safety support services to the nation's police, fire and other emergency service agencies. With such licenses, it could offer seamless, end-to-end service at a reasonable price and with few of the interoperability problems that currently make public safety operations inefficient.

Last year, Former FCC Chairman Reed Hundt has observed, however, additional spectrum will not solve *all* of the problems faced by the public safety community.¹⁴ PSWAC expresses a concern over "hampered interoperability"¹⁵ among public safety operations and describe how public safety officials in different agencies and different jurisdictions are limited in their

¹⁴ Hundt Statement, at 33 (Additional spectrum "is only the first step in improving our public safety communications...In the long run, we must take several steps to make sure that public safety officers have access to the best equipment and the most advanced services.").

¹⁵ Compu-DAWN's system alleviates the day-to-day, mutual aid and task force interoperability concerns raised by PSWAC. PSWAC Final Report, at ¶ 2.1.5. Indeed, Compu-DAWN's system fills a critical need in emergency situations such as the bombing of the World Trade Center by allowing public safety agencies to communicate with each other effectively and thereby respond to the crisis immediately and efficiently.

ability to communicate with each other.¹⁶ PSWAC cites a variety of explanations for this problem, including incompatible radio equipment,¹⁷ the inability (or sometimes failure) of public safety agencies to implement available technological advances,¹⁸ and inadequate funding.¹⁹

Public safety entities use commercial services to a limited extent now. But these services are not offered competitively; the frequencies may not be dedicated and cannot be depended on to be available for the long term. By encouraging companies to dedicate private frequencies for public safety services and support services, the Commission would create a more competitive arena, and as a result, ensure a better product for public safety services and support services is so far less remunerative than other uses of a given band that few, if any, entities could afford to dedicate spectrum for public safety uses. However, substantial bidding credits would make it possible for Compu-DAWN and other public safety service and support providers to offer these services more reliably, efficiently and widely.

Solutions to operational problems facing public safety must also be sought, and

¹⁶ PSWAC Final Report, at ¶ 2.1.4.

¹⁷ PSWAC Final Report, at 2 (Executive Summary).

¹⁸ See e.g., PSWAC Final Report, at ¶ 2.2.13 (“The availability of efficient and effective radio technologies is necessary for Public Safety Agencies to protect the lives and property of the country’s citizens in a safe and economical manner.”).

¹⁹ See PSWAC Final Report, at ¶ 1.5 (“Equipment is old and funding for new equipment is often scarce.”); ¶ 2.1.8 (“Interoperability (or the lack thereof) is often affected by non-technical factors including reluctance to adopt new approaches and funding limitations.”).

acquiring new spectrum, not hampered by bandwidth restrictions is paramount. Public safety agencies must make their use of spectrum more efficient²⁰ by availing themselves of emerging technologies.²¹ The development of affordable technologies and applications tailored to public safety usage, should be encouraged and helped to compete in the marketplace against non-public safety applications.²² This will require a partnership between public safety agencies and commercial entities that provide public safety technologies like Compu-DAWN.²³

PSWAC predicted that public safety will increase their use of commercial services in the future.²⁴ Noting the “changing role of commercial services in public safety’s needs for additional spectrum as well as additional efficiency and (2) allay the fears of some public safety agencies that by contracting with private entities, they will lose control or sacrifice reliability of service.

²⁰ See Reply Comments of Broadcasters Caucus in the DTV NPRM, at 27 (noting that many broadcasters have long felt public safety needs could be addressed through technological improvements and greater efficiency).

²¹ See Hundt statement, at 34 (noting that public safety agencies need new equipment and upgraded, more efficient systems). Compu-DAWN’s systems operate on ready-made equipment and can be implemented cheaply and quickly.

²² See PSWAC Final Report, at ¶ 2.5 (use of commercial systems as a reasonable alternative for public safety agencies will depend on their being available at affordable costs).

²³ See White Paper, at 15 (concluding that the public interest is “best served when public and private enterprises produce economically efficient types and quantities of public goods”).

²⁴ PSWAC Final Report, at ¶ 4.3.25.

Compu-DAWN believes that the FCC should give preference to Compu-DAWN and other companies who provide dedicated commercial spectrum services to Public Safety. Compu-DAWN believes that this is necessary to supplement public safety agencies own operational services. To encourage this, companies such as Compu-DAWN should be given a preference. The preference should be dedicated to those commercial entities whose operational spectrum service is primarily for public safety.

IV. THE ROLE OF COMPU-DAWN IN PUBLIC SAFETY

Compu-DAWN is acutely aware of the public safety community's needs for additional spectrum. Since 1983, Compu-DAWN has been providing public safety software applications to law enforcement, fire departments and emergency management systems.²⁵ Compu-DAWN believes, that in order to provide greater support for the public safety community, the FCC must not restrict bandwidth for future imaging applications, which will include high quality photographs, as well as moving images..

Compu-DAWN is expanding its service to many states and ultimately, through the bidding process, seeks to establish wireless networks for public safety agencies nationwide. Using

²⁵ Compu-DAWN'S Mobile Product AMO™ (Alecs 2000™ Mobile On-line) provide emergency response drivers with interactive direct access to headquarters as well as local, state and national crime information databases. Compu-DAWN's system also brings users a full range of advanced solutions: transmission of photos, text-to-speech, voice command recognition that converts to data, mapping and automatic vehicle locating services. See Description of Compu-DAWN, attached hereto as Exhibit A. Compu-DAWN's communications partners include IBM, GTE, Bell Atlantic/Nynex and AT&T.

its own state-of-the-art software applications, Compu-DAWN will employ a sufficient number of dedicated re-usable narrow and wide-band channels for a public safety network. These applications will be combined with low-cost, commercially available, off-the-shelf hardware, such as notebook computers and data transceivers, and will include applications such as computer-aided dispatching, computer interfacing with local, state and national crime information databases, advanced mobile on-line radio computing, automatic vehicle location, records management and photo-image database systems.²⁶

There are roughly 21,860 police agencies in the United States and over 35,000 fire departments that need reliable communications systems to conduct their operations. A mere 20% of these public safety agencies are equipped with mobile data capability, and other computer-aided dispatching. Compu-DAWN's modular systems transform the workings of these agencies. And Compu-DAWN is equipped to handle the gamut of public safety concerns, including security, prioritization of channel capacity, software application and computer hardware issues, system integration, system and component cost issues, and various operational issues. One of the most salient features of Compu-DAWN's system is

²⁶ See Exhibit A.

that it is frequency-independent and permits public safety officials in different agencies and different jurisdictions to communicate with each other, regardless of what frequencies they use. By being a specialized spectrum operator, Compu-DAWN and its competitors will be able to use their expertise in designing systems to also satisfy the growing and supplementary spectrum needs of a variety of agencies at the local, state and national levels.

V. CONCLUSION

Compu-DAWN believes that data is more spectrum efficient than voice communications; therefore a greater percentage of new public safety spectrum channels should be allocated to data and not voice.

A commercial allocation of spectrum to public safety will require specific rules which favor operators who cater to the needs of public safety. Commercial operators of public safety channels should receive incentives through auction credits. Compu-DAWN believes that we can best optimize our partnership with wireless system providers to foster value and performance for the benefit of users, and help the FCC meet the objectives mandated for serving public safety at large, only if the FCC recognizes the critical need for new wide-band spectrum channels.

The process for public safety spectrum allocations should be simply constructed and implemented quickly to provide the most benefit to the public. Compu-DAWN believes that

is essential that no specific transmission technology or criteria be specified other than to produce an effective radio signal and protect users from interference. Compu-DAWN believes that the selection of appropriate transmission methods, frequency assignments and equipment, are best left to the marketplace as represented by the users themselves. Further, to avoid contentious delays, we support widespread access to these frequencies by all eligible public safety groups, as well as commercial providers of public safety applications, through full participation by the appropriate frequency coordinating groups.

Respectfully submitted,

COMPU-DAWN, INC.

A handwritten signature in black ink, reading "Louis Libin", written over a horizontal line.

Louis Libin
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Dated: June 5, 1998

Exhibit A – COMPU-DAWN Software

Software Name	Brief Description
<p style="text-align: center;">ARMS™ Advanced Records Management System</p>	<p><u>Advanced Records Management System</u> for public safety agencies offers a comprehensive, user friendly method of gathering, manipulating and retrieving data in real time usage. ARMS™ includes the following integrated modules: Blotter, Case/Arrest, Follow-up Reports, Persons/Aliases, Tickets, Warrants, Property Registration, Custom Inquiry, Departmental Orders & Procedures, Mailbox/Notepad, Memos/Letters, Personnel, Police Diary, Roll Call, Standard Reports, Vacant Houses, Create/Print Forms, Orders of Protection, Firearm Permits, Vehicle Maintenance, System Manager. Other optional modules are also available.</p>
<p style="text-align: center;">VCAD™ Visual Computer-Aided Dispatch</p>	<p><u>Visual Computer-Aided Dispatch</u> is a full featured, easy-to-use Computer Aided Dispatching system for Police, Fire, and Emergency Medical Services. VCAD™ aids the dispatcher in assigning resources promptly and efficiently, and provides critical information from the database to dispatchers and responding public safety officers. Fully integrated with the Advanced Records Management System, VCAD™ features include: Efficient user interface, for rapid selection of incident information, available resources and dispatching functions; Geo-based address file with nearest cross streets, run cards, hydrant locations, grid and zone; Recommends available units for dispatch; Interfaced to Enhanced 911 (E911) module; Incident location shown on map of locale, using Mapping Interface module; Flagging of warrants, Orders of Protection, hazards, alarm sites, person histories and location histories; Look-ups by location name, address, alarm number; Multi-level pre-plan responses and suggested units based on location and availability; Hotkey access to view details of previous calls, warrants, departmental orders and procedures, hazardous material data and emergency business files; Date/time/event numbers stamped by system; User assignable timers; Hard copy log; Extensive set of reports for planning and analysis.</p>
<p style="text-align: center;">AMO™ ALECS Mobile On-line</p>	<p><u>ALECS Mobile On-line</u> provides the officer in the vehicle, by means of a laptop computer and RF / CDPD communications, with full, interactive access to the local headquarters' database. Information from any file can be accessed and updated real-time, and made available immediately to other users - for example, detectives who will be 'catching' the case. Officers in patrol cars can complete forms in the field, avoiding the necessity of returning to headquarters. Dispatch messages and patrol officer replies are transmitted as data, providing security and privacy. Messages can contain CAD generated information on hazards, person and location details and event description. Messages are stored until deleted, allowing repeated viewing. The "Text-to-Speech" option allows critical messages to be vocalized at the laptop, enabling officers to perform duties without the necessity of viewing the screen. This feature is especially useful when the patrol vehicle is moving, or the officer is dealing with a potentially violent situation.</p>

Exhibit A – COMPU-DAWN Software

PISTOL™ Photo Imaging Software Technology On-Line

Photo Imaging Software Technology On-Line enables departments to capture images of prisoners, property, accident scenes, crime scene photos, etc., and link them to the database for viewing with other pertinent information. Mugshots are linked to the person's data, and can be retrieved for identification at police headquarters. Color or black/white are supported, along with print capability. Multiple images of a given person can be captured and stored. Printed Mugshots are accompanied by a summary of the person's descriptive information. Lineups can be created, using powerful search arguments based on specified characteristics. Lineups can be viewed on-screen or printed, along with identification information. Lineups can be re-ordered for use by multiple witnesses. Photos relating to a crime can be linked to a specific case, and retrieved or printed on demand, with officer's notes attached. Any properly configured workstation can view images, create lineups, etc. A dedicated PC is required for image capture and image storage. Images can be captured with either a video camcorder or a still shot digital camera, or entered in the system through appropriate file types. This fully integrated system in effect allows you to "staple" a photograph to any record in the database. This can be particularly effective in the investigation and reporting of traffic accidents. Armed with an inexpensive digital camera, an officer can easily and readily take pictures at the scene of an accident and immediately "staple" those pictures to the accident report. That entire report can be created in the car using our AMO™ laptop and then transmitted to the headquarters database for access by any other authorized user of the system.

AVL™ Automatic Vehicle Locator

Automatic Vehicle Locator software and a PCMCIA card in an AMO™ equipped vehicle facilitates transmitting its location to headquarters, where it is overlaid on a map. Pinpoint locating of the vehicle is determined from Global Positioning System (GPS) satellites. Location and status of vehicles types (indicated by color-coded icons), and their movements are automatically plotted on the map. AVL™ provides management and dispatchers with a tracking tool that locates all equipped vehicles, and a visual representation that facilitates informed dispatch. When linked to Visual Computer Aided Dispatch, VCAD™ the system provides the location of the event, which is indicated on the map by a red arrow. AVL™ takes dispatching resources out of the abstract by providing visual representation of assets, rather than relying on voice reports alone. The same mapping capability providing command and control to supervisors is available in the field when linked to AMO™.

MAPPING INTERFACE

Mapping Interface works with mapping software to display the location of events. It gives the dispatcher the ability to zoom the map for detail, or move it (up/down/sideways) to enhance the view. Mapping Interface also stores and retrieves photos, detailed floor plans showing water and electric sources, entrances, elevator locations, etc. and any text associated with the building or facility plans. When used in conjunction with AMO™ and AVL™, the map will display the location and movement of all equipped vehicles, whose status is color-coded for easy recognition. With AMO™, maps can also be stored in the mobile computer enabling supervisors in the field to dispatch units based on a full display of unit and event locations. This provides invaluable command during emergencies (hostage situations, major emergencies, accidents, etc.). Data from ARMS, the records management system, can create pin maps which graphically display locations of various events, (i.e. location of all robberies in the jurisdiction within a specified date range and committed by a perpetrator with a particular MO).

Exhibit A – COMPU-DAWN Software

E911 INTERFACE Enhanced 911 Interface

Enhanced 911 Interface imports the caller's name, number and location (ANI/ALI) data from phone company records directly into the application. E911 utilizes an RS-232 connection between phone company equipment and the server and enables rapid, accurate dispatching of required units. If the address for the call for service is the subscribers address, pressing one key will automatically enter that information to the proper field on the screen. The data is displayed either on the event screen (ARMS™-Blotter) or the VCAD™ screen. Because all the information in every module is linked system-wide, historical information on the person or location is immediately accessed and available to the dispatcher, enabling informed decisions regarding the allocation of manpower and resources.

CIC INTERFACE Crime Information Center Interface

Crime Information Center Interface facilitates instant access to local, state and national crime information databases at every workstation in the network (a dedicated terminal is not required), and in every AMO™ attached vehicle or mobile computer. Connection can be by a dedicated direct telephone link to the state computer system, or by cable connection to an existing properly configured Enforcer terminal. Inquiries transmitted to the state systems are also forwarded to the National Crime Information Center (NCIC) database. Users are presented with integrated menu options for inquiries (i.e. driver information, persons, criminal history, etc.) and updates. AMO users can accomplish every function in the field as though they were in headquarters without involving the dispatcher.

MOBILE DATA COMMUNICATIONS INTERFACE

Mobile Data Communications Interface enables the use of a laptop, notebook or hand-held computer in the vehicle as part of the information system. Field personnel not only have the power of a computer at their fingertips, but have full radio communications to the base station and optionally to state information systems. Wireless communications using dedicated radio networks, public radio networks (e.g. RAM, ARDIS), Cellular Digital Packet Data (CDPD) or 800MHz trunked systems, can be supported. Data entry is largely accomplished through the use of function keys and dictionary selections, minimizing keying. The Mobile Data Communications Interface enables voiceless dispatching and messaging, working with the AMO™ and VCAD™ modules. If data and voice volumes are low, the data could be transmitted on the voice frequency, with voice taking precedence, sharing the same channel. Since a substantial portion of the usual voice traffic is now being transmitted as data information, voice traffic is greatly reduced and security heightened. Field office productivity is increased since the recording of data can be largely automated and event numbers and state inquiries can be done without having to wait for a dispatcher to be free to respond to voice requests for data retrievals.

CIVIL PROCESS SYSTEM

Civil Process System is a full function, cost effective, flexible software program specifically designed to meet the needs of county Sheriff's offices. Functions provided include: Entry of summonses, judgments, orders of attachment or seizure; Computation of all fees, and payoff balances; Retrieve search bases on name, partial name, or case number; Generation of eleven types of reports, i.e.: Lists Sum, Judge, Officer Workload, Count Status, Cash Payouts Received; Accurate recording of all cash receipts, credits, fees and disbursements; Print Summonses, judgments, certificates of service, affidavits, letters, attachments and seizures; Detailed listings of all attachments and seizures.

Exhibit A – COMPU-DAWN Software

COURT RECORDS SYSTEM	<u>Court Records System</u> offers a comprehensive, user friendly method of gathering, manipulating and retrieving court data in real time usage. The Court System includes the following integrated modules: Tickets – VTL, Parking Tickets, Warrants, Reports & Calendars, Notices, NYS DMV Processing, Mailbox/Notepad, Letters/Memos, System Manager, Cases
MOBILE TICKET PRINTING	<u>Mobile Ticket Printing</u> automates the ticket writing process, and gives the local police department the opportunity to record every infraction and maximize its revenues. A police officer can either enter the driver information on the keyboard, scan the information from a drivers license or registration sticker with a hand-held bar code reader, or, if you want to be on-line using RF or CDPD, an inquiry of the DMV database will automatically populate all driver information on the summons. The listing of motor vehicle infractions can be entered into and made part of the database, and the officer would need only to choose the corresponding violation from a dictionary field. Tickets are automatically printed on a commercially available mobile printer in the patrol car or on your person.
FALSE ALARM BILLING MODULE	<u>False Alarm Billing Module</u> automates the billing processes for false alarms from businesses and homes. The False Alarm Billing module provides an extensive set of functions related to classifying, and charging for, responses to false alarms of various kinds. The user has flexibility in setting alarm types, chargeable/non-chargeable, trigger levels, schedule of fines and other conditions (i.e. expired permit, grace period, etc.) Alarm billing is linked to a blotter event, with an alarm type corresponding to an event type. Using the information in the blotter and the criteria selected by the user, the False Alarm Billing module prints pre-formatted letters, containing variable information, and labels. Date ranges, individual locations, aged items, etc. can be selected. Payments, full and partial, are recorded, and the status of outstanding fines updated and receipts are printed. Various detailed management reports can be compiled (i.e. false alarms by location, type, amounts uncollected, etc.). An audit trail, logging all entries to the payments file and any changes to the status of fines, is maintained.
PARKING VIOLATIONS MODULE	<u>Parking Violations Module</u> records, stores, and retrieves all tickets issued in violation of the local jurisdiction's parking laws, and tracks payments received. Since there is a link to the database persons file, a historical record is kept on license plate numbers as well. Partial payments and balances due are maintained, along with due dates and ticket status. Dunning and scofflaw letters are created, and various user-defined management reports are generated. Parking Violations Module generates an electronic file of scofflaws that can be transmitted to the state DMV.
CASE™ Compu-DAWN Advanced Search Engine	<u>Compu-DAWN Advanced Search Engine</u> SQL based software utility provides detailed police history information about any individual based upon selected criteria including criminal records, events, cases, relatives with criminal records or any other associated person with police records, past and present addresses, as well as basic information including age, gender, race, etc. Computer generated images of these individuals can be displayed upon request. Customized and comprehensive Crystal Reports can be generated utilizing its SQL (Sequential Query Language) protocol.